Market Update... Tumultuous Times
The “Back-Story”

But to Recap:

• China “warned us 3-5 years ago – “Green Fence”
  – No more “trash”
  – Self-sufficiency for recycled materials
  – No one took it seriously...contamination got worse

• China 2017 – “National Sword”
  – Banned Mixed Paper effective 2018
  – Banned many plastics
  – Set 0.5% contamination level

• China 2018 – “Blue Sky, Green Water”
  – Ban is happening
  – Self-inspection eliminated
  – 100% inspection required
Why are we talking so much about Mix Paper?
Major (Top 10) USA City Recyclables Characterization

- Paper: 38%
- Glass: 26%
- Residue: 26%
- Plastic: 7%
- Metal: 3%

% of tons, NET of glass and residue

- Paper: 79%
- Plastic: 15%
- Metal: 6%
Quarterly - US Mixed Paper Exports to China
(Tons-000s Q1 2015 - 2018)

96% Decrease from Q1 2017
Net Result - Price Plummeted
Yellow Sheet - Mixed Paper Jan 16 to August 18

Actual Yellow Sheet Mixed Paper
(Jan 16 to August 18)
The Future...Uncertain
Mixed Paper Yellow Sheet very low

- Unprofitable MRFs
  - Closing doors
  - Trying to upgrade any mix that comes in to other grades

- Negative articles – daily
  - Consumers losing faith in recycling

- Other mills see $$$ in replacing OCC/DLK for Mixed Paper

- Other countries buying up Mixed Paper tons
Recent Negative Recycling Articles/Stories

The Seattle Times
The Boston Globe
Portland Tribune
The Charlotte Observer
FORTUNE
Bloomberg Business
The New York Times
DAILY NEWS NEW YORK
Los Angeles Times
USA TODAY
npr
The Washington Post
THE BALTIMORE SUN
DALLAS NEWS
THE WALL STREET JOURNAL.
RECYCLE THESE ITEMS

CANS
Aluminum & Steel

PLASTIC
Bottles & Jugs
1, 2 & 5

NEWSPAPER
Clean & Dry
No Food Contact

GLASS
Bottles & Jars

CARDBOARD
Dry & Flattened
No Food Contact

CARTONS

WHEN IN DOUBT ➔ THROW IT OUT

NO Plastic Bags
NO Food/Liquid
NO Garden Hoses

NO Shredded Paper
NO Clothing
NO Diapers

NO Medical Waste
NO Scrap Metal
NO Styrofoam

for more info:
www.PennWaste.com
China Impact By State: Minimal, Noticeable & Heavy
50 State - China Impact Trend Past 7 Months - Minimal vs. Noticeable + Heavy (as per "WasteDive" publication tracking by state)

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<th>November</th>
<th>March 2018</th>
<th>July 2018</th>
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<td>% Population Not. + Heavy</td>
<td>26%</td>
<td>49%</td>
<td>89%</td>
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- November: 34% (Minimal), 16% (Noticeable + Heavy)
- March 2018: 25% (Minimal), 25% (Noticeable + Heavy)
- July 2018: 11% (Minimal), 39% (Noticeable + Heavy)
Things to do Now
1. Forget about TONS and PERCENTAGES FOR NOW.

Focus on ONE thing only for RESIDENTIAL recycling:

QUALITY

High recycling rates, with low quality could result in demise of programs
2. Tackle Contamination Head-on

Work with your recycling processor, and DO WHAT THEY RECOMMEND

- Removal of low value items?
- Inspection of carts at the curb?
- Etc.
3. Promote QUALITY and no tolerance for contamination aggressively:

- Press Releases
- Local media interviews with Mayors, or other City Officials with Recycling Processor
- Mailers
- Education

Get out in front of it. Don’t let the media “one-up” you. Control the message so residents don’t lose faith in the program.
4.

e-Commerce Cardboard (OCC) recycling requires much education

In many instances, OCC left OUTSIDE the bin does NOT get picked up by the recycling truck
5. If possible, focus on under-served small and medium Commercial recycling for core items... paper and plastic
Bottom-Line ..... Back to Basics
THANK YOU

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